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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,250

02/13/2006

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EXAMINER

NGUYEN, TAI V

ART UNIT

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3729

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,250	<b>Applicant(s)</b> SMIRRA ET AL.	
	<b>Examiner</b> TAI NGUYEN	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 24-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/15/08,4/14/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The specification should have been revised to meet U. S. practice. The following format of the specification is suggested:

- Cross reference (if any).
- Back ground of the invention.
- Summary of the invention.
- Detailed of Description.

2. The abstract should have been modified to reflect the claim method for mounting module.

### ***Drawings***

3. The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

### ***Claim Objections***

4. It is not clear as to what being claimed as "a circuit support" (claim 24, line 2), whether the circuit support is a circuit board or not?

Regarding to the “saw tooth profiled” is unknown as to what saw tooth profiles is being referred in the application since saw tooth can be a number of patterns.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

“which comprises” (claim 24, line 1) should be changed to: -- said method comprising steps of : --.

The scope of claim 24 is not clear because it directed to both product and process. It is suggested claim 24 should be canceled or to change the preamble so that claim can be readable on the elected method invention.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 24, 26, 27, 29, 30 and 40 as best understood are rejected under 35 U.S.C. 102(b) as being anticipated by Wentland et al (US 5,461,541).

Wentland et al disclose a method for mounting a switching module comprising:  
providing a circuit support 12, a basic housing element 30 with walls  
(surrounded) said in the housing an interior provided with a number of guides 34/37,  
and cover elements (70/80) for closing on the housing element 30;

inserting the circuit support 12 into the housing 30 with the flat sides facing  
(which are top and bottom of support 12) towards the walls of the basic housing element  
30 (see Fig. 1, which incorporated with the discussion at col. 5, lines 1-12 and lines 21-  
30, appear to show the support 12 and the base inserting in the housing 30);

Further, regarding the inserting a longitudinally extended pressure strip clip 40  
between the circuit support 12 and the basic housing element 30, appear to be met by  
the Wentland because in Wentland the clip 40 patterns along support 12 where the flat  
face of 12 facing the top inside housing 30), where the bracing the pressure clip 40 be  
done by force against a fiat side of the circuit support 12 and guiding the pressure clip  
40 with guide projections from the interior of the housing 30 and finally to fasten or close  
the basic housing by the covers 70 and 80 (as indicated in Fig. 1, that the covers  
fastened to housing at the end of process).

Note: for the support 12 connectively attached to the housing 30 at first the  
support 12 have to be on the base 21 in prior to the inserting of the assembling board  
12 into the housing 30. Further, the pattern of clip 40's is laying in the longitudinal  
direction along the edge of the housing 30 as seen in details of Fig, 3.

Regarding claims 26 and 27, Wentland et al disclose the engaging of the clips with the housing and component 14 however, since 14 is apart of 12, therefore, the examiner position is that the clip 40 also subjecting the 40 as well).

As applied to claim 29, Wentland et al disclose the step of guiding support 12 during insertion into basic housing element by guide's members (this is showing in process of by Fig. 3).

As applied to claim 30, Wentland et al disclose the step of fitting the circuit support with components 14 on both sides before the insertion of the circuit assembly into the basic housing element 30 (as indicated in details shows in Fig. 1).

As applied to claim 40, Wentland et al disclose the sealing the housing openings ends by end covers 70 and 80 (see Fig. 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 24, 25, 28 and 35-39 and as best understood are rejected under 35 U.S.C. 103(a) as being unpatentable over Wentland (US 5,461,541) in view of Calabro (US 4,096,547).

As applied to claims 24, 25, 28, and 36, if argues that no inserting of pressure strip in a longitudinal direction and in between the circuit support and the housing, the

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above for example Calabro's Figs. and 4A which shows the circuit support 10 is inserting into part of the housing namely guides members including 32, 34, 28, 20, etc. and disclose by Wentland then applicants are referred to Calabro for the teaching of the inserting the circuit support 10 into the housing element (which not shown, however housing discloses as cage in col. 2, lines 28-30), and the strip member 40 for engaging and retaining the circuit support, which extended between the circuit support and the housing device 20 of the housing member (see Figs. 1 and 4A).

Therefore, it would have been obvious to one of having ordinary skill in the art at this time the invention was made to utilize with the teaching as described by Calabro onto Wentland reference in order to provide an enclosure for protecting and the dissipating of thermal heat built up in the device, etc.

Calabro inherently discloses the housing having covers and basic frames (refer to col. 2, line 30-32 for the alternative rack or cage for housing the circuit support).

As applied to claim 35, noting, Calabro discloses the strip 40 having break point and the inserting and sliding end before insertion into the basic housing element (see Fig. 2, which shown partials pressure strip indeed having a break point in form at each end).

Regarding to claim 37, Calabro discloses the pressure strip 40 in form of tooth patterns can be read as "saw tooth" as recited in claim 37 (see Fig. 2).

As applied to claim 38, Wentland et al disclose clamping the basic housing by cover elements 70/80 (see Fig. 1, Note: The examiner position that the fastener the covers to the housing product the clamping force by cover against and the housing).

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8. Claims 31-34 as best understood is rejected under 35 U.S.C. 103(a) as being unpatentable over Calabro in view of Wentland et al and further in view of Kim et al (US 6,288,902).

Calabro or Wentland as modified above do not teach the step of fixing a cover element to the circuit support before insertion of the circuit support into the basic housing element. Kim et al teach a cover the coupling of to the circuit support 164 in prior to the step of inserting of the support to the housing as shown in Fig. 4. Therefore, it would have been obvious to one of having ordinary skill in the art at this time the invention was made to apply teaching as taught and described above by Kim on to the inventions Calabro/Wentland in order to simplify the process by utilizing the old and available teaching i.e., protecting circuit assembly or module by protecting housing, cage, or cover, etc.

As applied to claims 31 and 32, Kim et al disclose the step of fixing a cover element 114 to the circuit support 164 before insertion of the circuit support into the basic housing element enclosure 112 (see Figs. 3-5).

As applied to claim 33, Kim et al disclose the inserting the pressure strip into the basic housing element 112 together with the circuit support 164 (see Fig. 5).

As applied to claim 34, Kim et al disclose the providing of cover element 114 with the pressure strip 185b attached to an opening in the basic housing element 112 (see Figs. 3-5). Therefore, it would have been obvious to one of having ordinary skill in the art at this time the invention was made to utilize with Kim's the teaching as described



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above onto the Wentland/Calabro invention in order to protect the electronic circuit by a housing and covers provided thereof.

9. Claim 41 as best understood is rejected under 35 .S.C. 102(b) as being anticipated by Wentland et al or Kim et al or Calabro.

Wentland et al anticipated the claimed a switching module of the product by process claim 41 (see details in Fig. 1, for the product set forth in claim 41)

Kim discloses the product by process of claim 41 such as a module and housing or cage for holding or supporting a circuit support (see Figs. 3-4).

Calabro discloses the product by process of claim 41 a module switch having housing and covers encapsulated or housed a circuit support therein (see Figs. 1-3, hosing described in col. 2, lines 30-32)

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAI NGUYEN whose telephone number is (571)272-4567. The examiner can normally be reached on M-F (7:30 A.M - 4:30 P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

tn  
5/1/09

/Minh Trinh/  
Primary Examiner, Art Unit 3729